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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,490	04/15/2004	Terry L. Briscoe	324-CIP	6575
54327	7590	12/29/2005	EXAMINER	
ESCO CORPORATION 2141 NW 25TH AVENUE P.O. BOX 10123 PORTLAND, OR 97210			NEWVILLE, TONI E	
			ART UNIT	PAPER NUMBER
			3671	

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/824,490

Applicant(s)

BRISCOE, TERRY L.

Examiner

Toni Newville

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
- 4a) Of the above claim(s) 24,25,34,35 and 39-52 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11-23, 26-33, 36-38 and 53-56 is/are rejected.
- 7) ☒ Claim(s) 9, 10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/13/04, 11/29/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-40 and 53-56, drawn to a wear assembly having a lock comprising a threaded wedge, classified in class 37, subclass 455.
 - II. Claims 41-44, drawn to a lock having a tooth, classified in class 37, subclass 451.
 - III. Claims 45-52, drawn to a wear assembly comprising a threaded lock, classified in class 37, subclass 454.

The inventions are distinct, each from the other because of the following reasons:

Inventions I, II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as a gear system. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II or Group III, restriction for examination purposes as indicated is proper.

With respect to Group 1, this application contains claims directed to the following patentably distinct species of the claimed invention: Fig. 18b, directed to a cradle having a curved concave surface; Fig. 20, directed to a cradle having a curved convex surface,

and Fig. 21, directed to a cradle having curved portions that are offset relative to each other.

If applicant elects Group 1, applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 36, disclosing a cradle having a curved front surface, is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

During a telephone conversation with Steven Schad on 11/30/2005 a provisional election was made without traverse to prosecute the invention of Group I, species of Fig. 19, claims 1-23, 26-33, 36-38, and 53-56. Affirmation of this election must be made by applicant in replying to this Office action. Claims 24, 25, 34, 35, 39-52 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Specification

2. The disclosure is objected to because of the following informalities: page 20 paragraph 3 line 2, "wedge 112" should be "wedge 12".

Appropriate correction is required.

Claim Objections

3. Claim 6 is objected to because of the following informalities: it appears that claim 6 should depend from claim 5 rather than claim 4, and claim 6 will be examined as such in this office action. Otherwise, the limitation "the groove" recited in lines 2-3 has no antecedent basis. Appropriate correction is required.
4. Claim 30 is objected to because of the following informalities: the limitation "the legs" in line 2 and "the lip" in line 3 has insufficient antecedent basis. Appropriate correction is required.

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5. Claim 36 is objected to because of the following informalities: the limitation "the lip" in line 8 has insufficient antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, 4-6, 14, 15, 26, 29, 53 and 54 are rejected under 35 U.S.C. 102(b) as being anticipated by Fidler, US 6301810, cited by applicant.

Regarding claim 1, Fidler discloses a wear assembly (10) comprising a support structure (14), a wear member (28) mounted on the support structure and a lock (52) releasably securing the wear member (28) on the support structure, the support structure and the wear member (28) cooperatively defining an opening (38) for receiving the lock, the lock (52) comprising a screw, which can be considered a wedge because a wedge can be defined as anything forcing an opening or division, the wedge being formed with a first thread formation that is threadedly coupled to a second thread formation in the opening such that rotation of the wedge moves the wedge into the opening to tighten the lock in the opening.

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Regarding claim 2, the first thread formation on the wedge (52) is defined by a helical groove (Fig. 1).

Regarding claim 4, the wear assembly (10) further comprises a spool (46) fit between the wedge (52) and a rear wall of the opening (38), the wedge being movable along the spool as the wedge is tightened in the opening.

Regarding claim 5, the first thread formation on the wedge is defined by a helical groove (Fig. 1).

Regarding claim 6, the second thread formation in the opening (38) is formed on the spool (46) as at least one projection to engage the groove.

Regarding claim 14, the spool (46) has a generally C-shaped configuration that includes a body and a pair of arms (Fig. 1)

Regarding claim 15, the wear assembly (10) further includes an insert (50) that engages the wedge opposite the spool (46).

Regarding claim 26, the wear member is a point and the support structure is an adapter that attach together to form an excavating tooth (Fig. 1).

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Regarding claim 29, the first thread formation of claim 1 could inherently be a tapping thread.

Regarding claim 53, Fidler discloses a wear assembly (10) having an inherent method of attachment of the wear member to the support structure, comprising:

Placing the wear member (28) on the support structure (46) such that formations in the wear member and the support structure cooperatively define an opening (38), inserting a wedge (52) having a first thread formation into the opening and threadedly engaging a second thread formation in the opening, rotating the wedge to drive the wedge into the opening to tightly retain the wear member on the support structure.

Regarding claim 54, the method of claim 53 further includes the step of inserting a spool (46) into the opening, the spool having the second thread formation to threadedly engage the wedge.

8. Claims 1, 4, 13, 16-18, 21-23, 27, 30-33, and 36-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Brinkley, US 5964547.

Regarding claim 1, Brinkley discloses a wear assembly comprising a support structure (14), a wear member (10) mounted on the support structure and a lock (38) releasably securing the wear member (10) on the support structure (14), the support

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structure (14) and the wear member (10) cooperatively defining an opening (18) for receiving the lock (38), the lock (38) comprising a screw, which can be considered a wedge because a wedge can be defined as anything forcing an opening or division, the wedge being formed with a first thread formation (Fig. 3) that is threadedly coupled to a second thread formation in the opening such that rotation of the wedge moves the wedge into the opening to tighten the lock (38) in the opening.

Regarding claim 4, the wear assembly further comprises a spool (33) fit between the wedge (38) and a rear wall of the opening (18), the wedge being movable along the spool (33) as the wedge (38) is tightened in the opening (18).

Regarding claim 13, the spool (33) engages the wear member (10) and the wedge (38) engages the support structure (14).

Regarding claim 16, the first thread formation is a helical ridge (Fig. 3) and the second thread formation is a groove structure (Fig. 4).

Regarding claim 17, the wear assembly further includes an insert (24) that engages the wedge opposite the spool.

Regarding claim 18, the insert (24) includes a groove structure (34) to receive the helical ridge.

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Regarding claim 21, the wear assembly of claim 4 further includes a cradle (24) to contact the wedge (38) along a side opposite the spool (33), the cradle (24) having a front surface that is curved generally about a transverse axis to better accommodate shifting of the vertical orientation of the lock during use.

Regarding claim 22, the wear assembly of claim 21 further comprises an insert (32) between the front of the opening and the cradle (24), the insert having a rear surface that complements the front surface of the cradle (Fig. 1).

Regarding claim 23, the front face of the cradle (24) includes a curved concave surface generally about the transverse axis.

Regarding claim 27, the wear member (10) is an adapter and the support structure is a lip of an excavating bucket (column 2 lines 49-51).

Regarding claim 30, the wear assembly further comprises means (24) for effecting shifting of the vertical orientation of the wedge (38) as legs of the wear member (10) shift longitudinally on a lip.

Regarding claim 31, the limitations therein have been described above with respect to claims 1 and 21.

Regarding claim 32, the limitations therein have been described above with respect to claims 1, 21 and 22.

Regarding claim 33, the limitations therein have been described above with respect to claims 1, 21, 22, and 23.

Regarding claim 36, Brinkley discloses a wear assembly comprising a support structure, a wear member (10) mounted on the support structure (14) and a lock (38) releasably securing the wear member on the support structure, the support structure and the wear member cooperatively defining an opening (18) for receiving the lock, the lock comprising a wedge movable into the opening to tighten the lock in the opening, and a cradle (24) fit between the wedge and the front of the opening (18), the cradle (24) having a curved front surface (Fig. 2) generally about a transverse axis to fit against a complementary surface in the opening (18) to effect shifting of the vertical orientation of the wedge (38) as the wear member shifts longitudinally on a lip during use.

Regarding claim 37, the limitations therein have been described above with respect to claims 36 and 22.

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Regarding claim 38, the limitations therein have been described above with respect to claims 36, 22 and 23.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fidler, US 6301810, cited by applicant, in view of Brinkley, US 5964547, cited by applicant.

Regarding claim 3, Fidler discloses a wear assembly as described above with respect to claim 2, but fails to disclose the groove having a large pitch so that a substantial portion of the exterior surface of the wedge exists between each pair of turns of the groove to provide a bearing surface for the lock (52).

Like Fidler, Brinkley discloses a wear assembly, including a wedge (38) having a first thread formation and a spool (33) having a second thread formation (46). Unlike Fidler, Brinkley further discloses the thread formations having a large pitch so that a substantial portion of the exterior surface of the wedge (38) exists between each pair of turns of the groove to provide a bearing surface for the lock (52).

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Given the suggestion in Brinkley, it would have been obvious to one of ordinary skill in the art to make the first thread formation of the wedge (Fidler; 52) have a large pitch so that fewer threads must engage during the tightening process, thereby decreasing assembly time of the wear assembly.

11. Claims 7, 8, 11, 12, 55 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fidler, US 6301810, in view of Fletcher et al., US 4282665, cited by applicant.

Fidler discloses a wear assembly as described above with respect to claim 6, including an opening having a second thread formation and a spool fit between the wedge and a rear wall of the opening. Fidler fails to disclose a latch for holding the lock in a tightened condition in the opening.

Like Fidler, Fletcher discloses a wear assembly, including a wedge (120) and a spool (119) that are fit into an opening (113, 114). Unlike Fidler, Fletcher further discloses a latch (123) for holding the lock in a tightened condition in the opening (claim 7), the latch (123) including a resiliently biased detent (124) to engage a series of teeth (123) on the wedge (claim 8). Fletcher further discloses the latch (123) being mounted on the spool (119) (claim 12), the spool (119) being mounted on a wear member (39) (claim 11).

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Given the suggestion in Fletcher, it would have been obvious to one of ordinary skill in the art to include a latch on the wear assembly (Fidler; 10) of Fidler as taught in Fletcher to prevent movement of the spool and wedge relative to the support structure and wear member.

Regarding claims 55 and 56, the method disclosed is inherent in the structure described above with respect to claims 7, 8, 12 and 28.

12. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brinkley, US 6301810, cited by applicant, in view of Hedley, US 6009644, cited by applicant.

Brinkley discloses a wear assembly as described above with respect to claim 4, but fails to disclose the spool (33) being integrally formed with the wear member (10).

Like Brinkley, Hedley discloses a wear assembly, including a wedge (11) having a first groove formation (26) that fits into a second groove formation (17A) of a spool (12). Unlike Brinkley, Hedley further discloses the spool (12) being integrally formed with a wear member (Fig. 1).

Given the suggestion in Hedley, it would have been obvious to one of ordinary skill in the art to make the spool (Brinkley; 33) and wear member (Brinkley; 10) of Brinkley integral because making the two parts integral decreases the number of separate parts in the assembly, thereby improving assembly time and decreasing the possibility of part breakage or wear.

13. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brinkley, US 6301810, cited by applicant, in view of Hedley, US 6009644, cited by applicant, as applied to claim 19 above, and further in view of Ruvang, 5713145.

Brinkley and Hedley disclose a combination of wear assemblies as described above with respect to claim 19, including an integral spool and wear member, but fail to disclose the element being cast.

Like the combination, Ruvang discloses a wear assembly, for an excavating apparatus. Unlike the combination, Ruvang discloses that it is commonly known in the art to cast the elements of a wear assembly (column 2 lines 20-22).

Given the suggestion in Ruvang, it would have been obvious to one of ordinary skill in the art to make the integral spool (Brinkley; 33) and wear member (Brinkley; 10) of the combination cast as a single-piece member because casting allows for the efficient, cost-effective creation of complex metal shapes.

14. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fidler, US 6301810, cited by applicant, in view of Fletcher et al., US 4282665, cited by applicant.

The limitations of claim 28 are described above in the rejection of claims 1 and 7.

Allowable Subject Matter

15. Claims 9 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

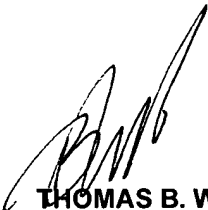
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toni Newville whose telephone number is (571) 272 - 1548. The examiner can normally be reached on Monday - Friday 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on (571) 272-6998. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Toni Newville
December 5, 2005



THOMAS B. WILL
Supervisory Patent Examiner
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